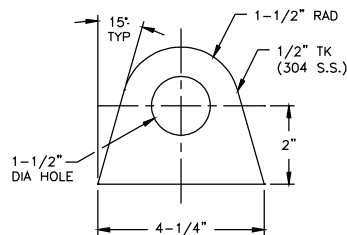
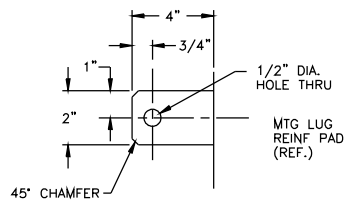


DETAIL "A"  
(TYP. FERRULE INSTALLATION)



DETAIL "B"  
(LIFT LUGS)



DETAIL "C"  
(GROUNDING LUG)

#### GENERAL NOTES:

- ALL DIMENSIONS ARE IN INCHES AND GENERAL TOLERANCES ARE AS FOLLOWS:  
VESSEL SHELL DIAMETER  $\pm 1\%$  OF VESSEL I.D. PER UG-80 (a-1), 2001 A.S.M.E. CODE, SECTION VIII, DIVISION 1.  
FORMED VESSEL HEAD TOLERANCE PER UG-81 (a), 2001 A.S.M.E. CODE, SECTION VIII, DIVISION 1.
- GENERAL TOLERANCES: FRACTIONS  $\pm 1/8"$ , ANGLES  $\pm 1^\circ$ . (UNLESS OTHERWISE NOTED)
- VESSEL WEIGHT EMPTY: 2800 LBS APPROX.
- VESSEL WEIGHT FULL: 7186 LBS APPROX. (2000 LITER LEVEL, WATER)
- VESSEL MUST BE BOLTED TO FLOOR BEFORE OPERATING.
- ALL TESTING & CLEANING TO BE DONE W/ DEIONIZED WATER.
- ALL MATERIAL S.S. UNLESS NOTED OTHERWISE.
- VESSEL JACKETS TO BE PAINTED W/ THURMALOX 70 PAINT BEFORE INSULATING.
- VESSEL SUPPLIED W/ A PREVALIDATION DOCUMENTATION PACKAGE.
- ALL NOZZLES (WHERE APPLICABLE) TO BE COVERED W/ PLASTIC CAPS/COVERS FOR SHIPPING.
- FLANGE BOLT HOLES TO STRADDLE NATURAL CENTERLINES EXCEPT WHERE NOTED.
- VESSEL TO BE SPRAYBALL TESTED USING RIBOFLAVIN DYE, DEIONIZED WATER & BLACK LIGHT. VESSEL INTERNAL TO BE COATED W/ RIBOFLAVIN DYE. AFTER COATING W/ DYE, RUN DEIONIZED WATER THRU SPRAYBALLS FOR APPROX. TWO MINUTES PER BALL AT THE DESIGNED FLOW RATES & PRESSURES. THE VESSEL WILL THEN BE CHECKED W/ A BLACK LIGHT, IF ANY TRACE OF RIBOFLAVIN IS LEFT (OTHER THAN DROPLETS FORMED FROM REMOVING CAPS, ETC...), THE VESSEL WILL BE TESTED AGAIN USING THE SAME PROCEDURE. UPON COMPLETION OF 100% COVERAGE, TESTING IS COMPLETE. TESTING IS COMPLETE. LEE TO RUN 1ST TEST USING CONN'S "U" & "E" AT 24.5 GPM. IF DYE IS STILL PRESENT, RUN 2ND TEST W/ ALL THREE SPRAYBALLS AT 16 GPM.
- LEE USES Y-MARK TO ALIGN BTM HD JKT CONN'S.
- LOAD CELL ASSY KIS 10-20KN FURNISHED AND INSTALLED BY OTHERS.

#### DESIGN DATA:

- 2001 A.S.M.E. CODE, SECTION VIII, DIVISION 1, CODE SYMBOL "U"
- DESIGN AND TEST INTERNAL JACKET  
DESIGN PRESSURE FULL VACUUM-75 PSI FULL VACUUM-125 PSI  
DESIGN TEMPERATURE 329° F (165° C) 329° F (165° C)  
TEST PRESSURE 100 PSI 166 PSI
- FULL VACUUM IS NON-CODE.
- MAX OPERATING TEMPERATURE IS 300° F DUE TO LIMITATIONS OF GASKET MATERIAL & MAG MIXER.
- TOP & BTM HEADS ARE ONE PC CONSTRUCTION (85% EFF.)
- CYL TO HAVE ONE LONG SEAM (70% EFF.)

#### MATERIAL SPECIFICATIONS:

CYLINDER	SA240316L	.250" TK.	NOZZLES	SA479316L
TOP HEAD	SA240316L	.375" TK.	RINGS	SA479316L
BOTTOM HEAD	SA240316L	.3125" TK.	LIFTING LUG	SA479304
SHEATH	SA240304L	.105" TK.	INSULATION	INSWOOL
DIMPLE JKT	SA240316/316L	.078" TK.	T.C. GASKETS	EPDM
			O-RING GASKETS	EPDM

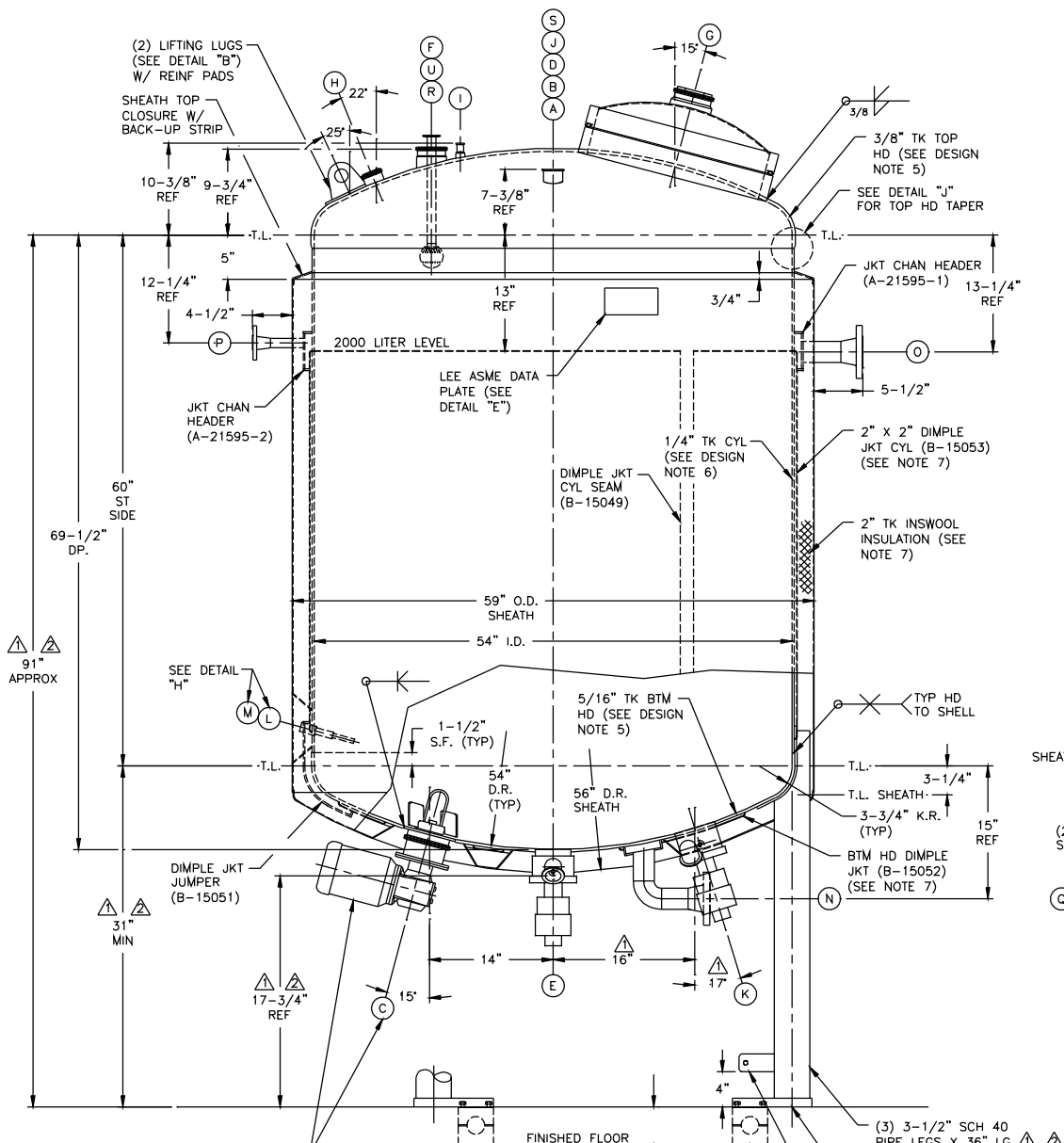
#### FINISH SPECIFICATIONS:

- STAINLESS STEEL INTERNAL SURFACES: 25 RA AFTER ELECTROPOLISH.
- STAINLESS STEEL EXTERNAL SURFACES: 35 RA W/ ALL WELDS GROUND SMOOTH & FLUSH.
- STAINLESS STEEL INTERNAL SURFACES TO BE PASSIVATED.

MODEL NO: 2,000 LITER STYLE "DP" VAC/PRESS TANK, TA-10401

P.O. NO.:

LEE SERIAL NUMBER: 27989-4

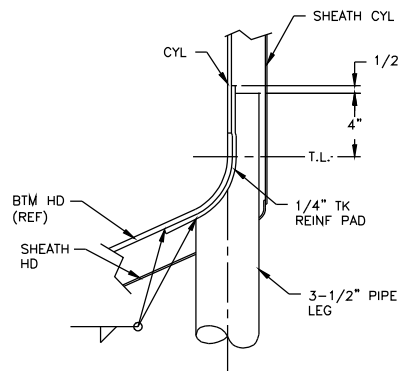


ELEVATION ONLY

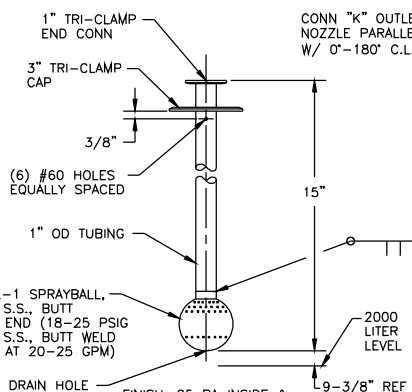
AG-10102 LIGHTNIN 1/2 HP, 230V, 60C, 3PH, TEFC BTM ENTRY MAG MIXER (175 RPM) W/ 6.25" DIA IMPELLER & 316L PRODUCT CONTACT PARTS. MIXER SUPPLIED W/ A NEMA 4 AC INVERTER, 115V IN/230V OUT W/ SPEED PICKUP & TACH FEEDBACK. SET TO GIVE MIXER SPEEDS OF 58.3-175 RPM. A SPEED OF 181 RPM CAN BE REACHED BY PROGRAMMING INVERTER TO 62 HZ. (MIXER SUPPLIED ON ITEM "2" OF THIS ORDER & INVERTER SUPPLIED ON ITEM "3" OF THIS ORDER)(MTG & WIRING OF INVERTER BY OTHERS)

NAT'L BD. Certified by			
LEE INDUSTRIES INC.			
MANP INTERNAL	75 PSI AT 329 °F		
MANP JACKET	125 PSI AT 329 °F		
MDMT INTERNAL	-20 °F AT 75 PSI		
MDMT JACKET	-20 °F AT 125 PSI		
SERIAL NO.	27989-4	MODEL NO.	"2,000LDP"
YEAR BUILT	2003		

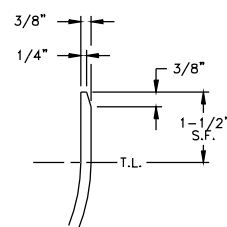
DETAIL "E"  
(LEE ASME NAMEPLATE)  
(SCALE: NONE)



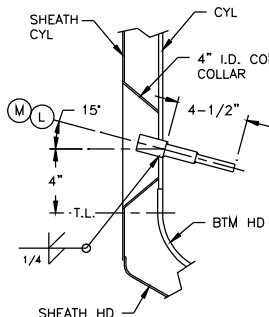
DETAIL "F"  
(LEG TO SHELL)



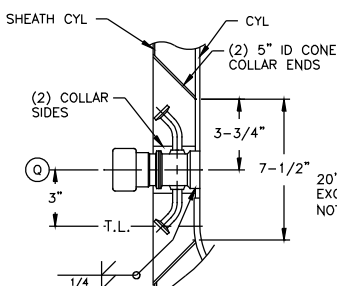
DETAIL "G"  
(SPRAYBALL CONN)  
(SEE NOTE 11)



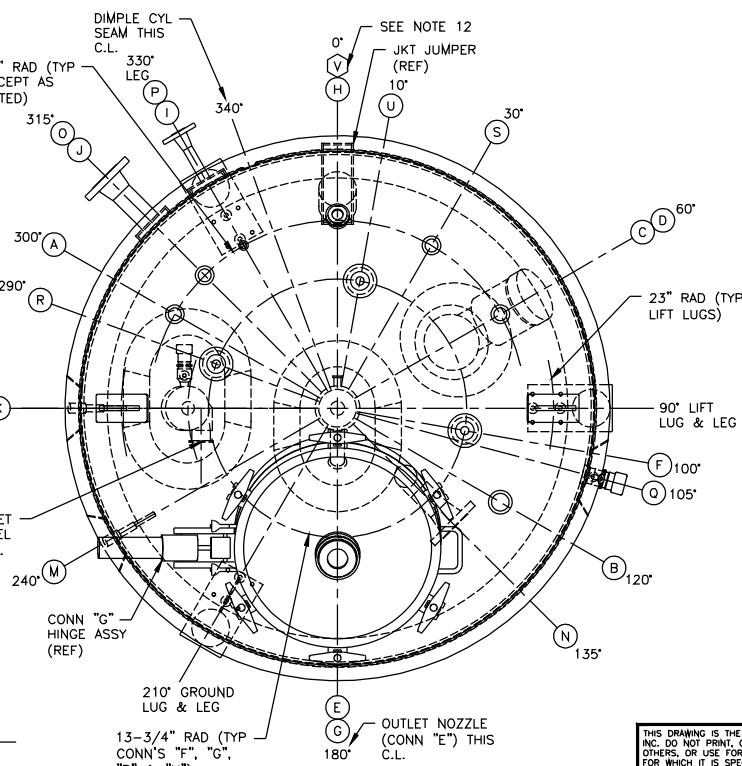
DETAIL "K"  
(TOP. HEAD TAPER)



DETAIL "J"  
(CONN'S "L" & "M")



DETAIL "H"  
(CONN "Q")



#### TRUE ORIENTATION

CHG LOAD CELL FLANGES, CHG HEIGHT DIMENSIONS FOR 22" UNDER OUTLET INCLUDING LOAD CELLS, ADDED NOTE 13 & LOAD CELL FLANGES WERE A-15257-2

APPROVAL CHANGES  
(CONN "E" WAS 1-1/2", OUTLETS WERE MANUAL, REORIENTED CONN'S PER APPROVAL PRINTS, 95-1/4" WAS 84", 35-1/4" WAS 24", 22" WAS 11-1/2" & LEGS WERE 28" LG)

REV. DESCRIPTION DATE

4-22  
-03  
CGS  
TMK

2-6  
-03  
JAD/  
SRT



PROCESS SYSTEMS & EQUIPMENT  
DIVISION OF LEE INDUSTRIES, INC.  
PHILIPSBURG, PA.

2,000 LITER STYLE "DP" VAC/PRESS TANK, TA-10401

SCALE: NONE

DRAWN BY: JAD

APPROVED BY: JEB

DATE: 12-27-02

DRAWING NO.

D-1403

REV.

2

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LEE SERIAL NO.: 27989-4

NOZZLE SCHEDULE					
MARK	SIZE	SERVICE	NO. REQ'D	RATING	DESCRIPTION
A	1-1/2"	RELIEF VALVE	1	HEAVY WALL	TRI-CLAMP FERRULE (SEE DETAIL "A" & NOTE 9)
B	2"	SPARE	1	HEAVY WALL	TRI-CLAMP FERRULE (SEE DETAIL "A") W/ CAP, CLAMP & GASKET
C	6"	MIXER	1	WELD PLATE	MAG MIXER WELD PLATE W/ A 8" I.D. COLLAR (B-15052)
D	1-1/2"	PI	1	HEAVY WALL	TRI-CLAMP FERRULE (SEE DETAIL "A" & NOTE 9)
E	2"	OUTLET #1	1	WELD PLATE	ASEPCO RADIAL DIAPHRAGM OUTLET VALVE W/ 2" 45° TRI-CLAMP OUTLET, 1/2" TRI-CLAMP SIP PORT, EPDM DIAPHRAGM, PNEUMATIC OPERATOR & 8" I.D. OBLONG CONE COLLAR (B-15052)(TF20-200-2-PN20-EP20)
F	3"	CIP	1	HEAVY WALL	TRI-CLAMP FERRULE (SEE DETAIL "A") W/ CLAMP, GASKET & REMOVABLE SPRAYBALL (SEE DETAIL "G" & NOTE 11)
G	20"	MANWAY	1	FV-75 PSIG	LEE MANWAY (C-8103) W/ EPDM O-RING GASKET & 4" TRI-CLAMP FERRULE W/ CANTY FUSED VIEW SIGHTGLASS
H	2"	LIGHTPORT	1	HEAVY WALL	TRI-CLAMP FERRULE W/ CLAMP, GASKET & A CANTY HYL50-1-WP-S-NBHT-2-TRI-OINS LIGHT & 16 FT CORD
I	3/4"	CS	1	HEAVY WALL	TRI-CLAMP FERRULE (SEE DETAIL "A" & NOTE 9)
J	1-1/2"	VENT	1	HEAVY WALL	TRI-CLAMP FERRULE (SEE DETAIL "A" & NOTE 9)
K	2"	OUTLET #2	1	WELD PLATE	ASEPCO RADIAL DIAPHRAGM VALVE W/ OFFSET TANGENTIAL 2" TRI-CLAMP OUTLET, 1/2" TRI-CLAMP SATTELLITE VALVE, EPDM DIAPHRAGMS, PNEUMATIC OPERATORS & 9" I.D. OBLONG CONE COLLAR (B-15052)(TR20-210-2-PN20-EP20-MN05-EG05)
L	1"	THERMOWELL	1	HEAVY WALL	PROBE TYPE SANITARY SOCKET WELD THERMOWELL W/ 4-1/2" INSERTION, .260" DIA BORE, 1/2" NPSM END CONN, 6" STEM LG & 4" I.D. CONE COLLAR (SEE DETAIL "J") (SENSOR BY OTHERS)
M	1"	THERMOWELL	1	HEAVY WALL	PROBE TYPE SANITARY SOCKET WELD THERMOWELL W/ 4-1/2" INSERTION, .260" DIA BORE, 1/2" NPSM END CONN, 6" STEM LG & 4" I.D. CONE COLLAR (SEE DETAIL "J") (SENSOR BY OTHERS)
N	2"	JACKET INLET	1	150# W.N.	150# WELD NECK FLG W/ SCH 40 NECK, 90° ELBOW, SHEATH PATCH, INSULATION GROMMET & JKT HEADER (B-15052)(W.E.)
O	2"	JACKET OUTLET	1	150# W.N.	150# WELD NECK FLG W/ SCH 40 NECK, SHEATH PATCH, INSULATION GROMMET & JKT HEADER (A-21595-1)(W.E.)
P	3/4"	JACKET VENT	1	150# W.N.	150# WELD NECK FLG W/ SCH 40 NECK, SHEATH PATCH, INSULATION GROMMET & JKT HEADER (A-21595-2)(W.E.)
Q	1/2"	SAMPLE	1	WELD PLATE	ASEPCO RADIAL DIAPHRAGM SAMPLE VALVE W/ (2) 1/2" 45° TRI-CLAMP PORTS, EPDM DIAPHRAGM, MANUAL OPERATOR & 5" ID OBLONG CONE COLLAR (SEE DETAIL "H") (TS05-215-3-MN05-EP05)
R	3"	CIP	1	HEAVY WALL	TRI-CLAMP FERRULE (SEE DETAIL "A") W/ CLAMP, GASKET & REMOVABLE SPRAYBALL (SEE DETAIL "G" & NOTE 11)
S	1-1/2"	UF RETURN	1	HEAVY WALL	TRI-CLAMP FERRULE (SEE DETAIL "A" & NOTE 9)
U	3"	CIP	1	HEAVY WALL	TRI-CLAMP FERRULE (SEE DETAIL "A") W/ CLAMP, GASKET & REMOVABLE SPRAYBALL (SEE DETAIL "G" & NOTE 11)